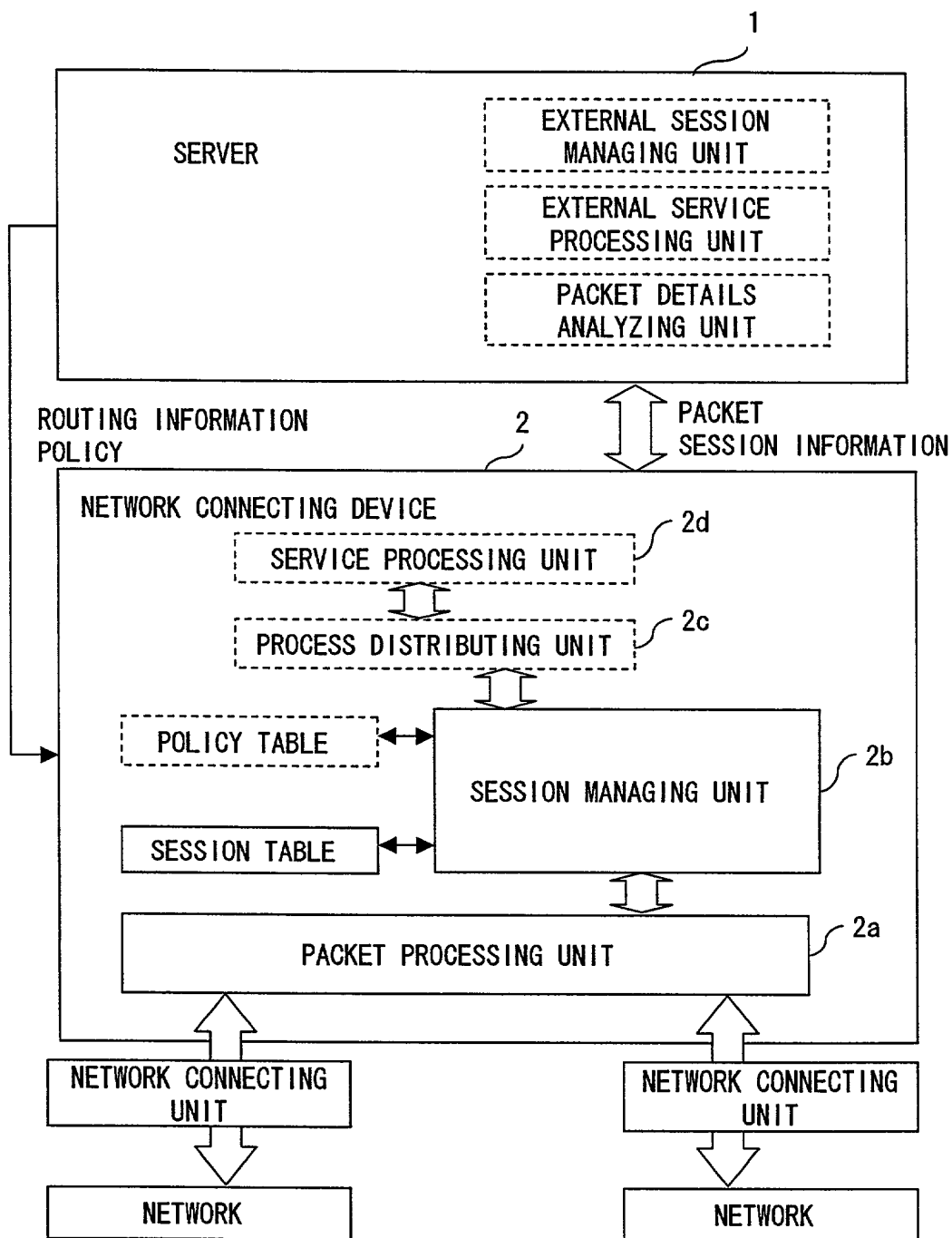


FIG. 1
(RELATED ART)



F I G . 2

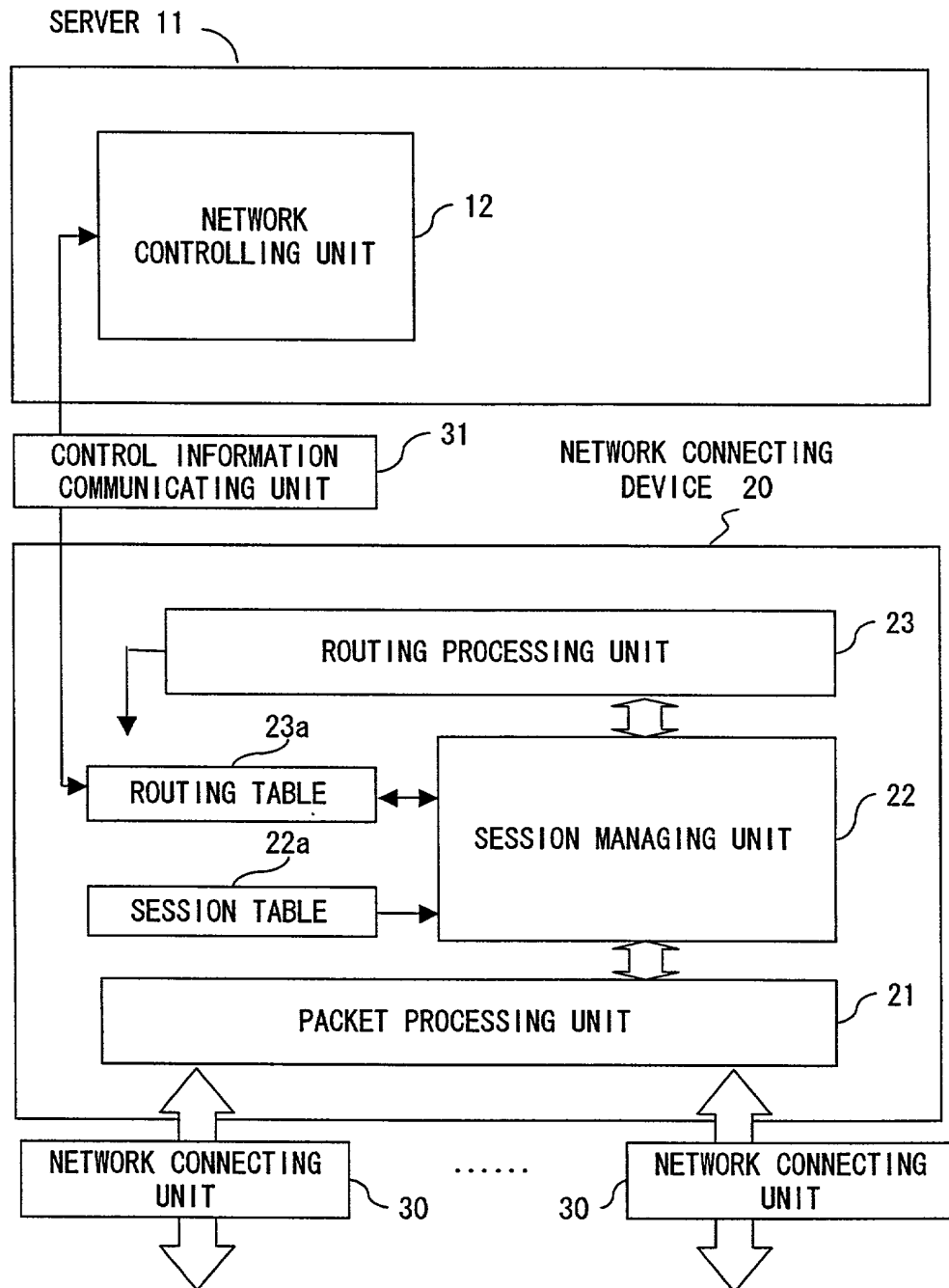


FIG. 3

202210150950T

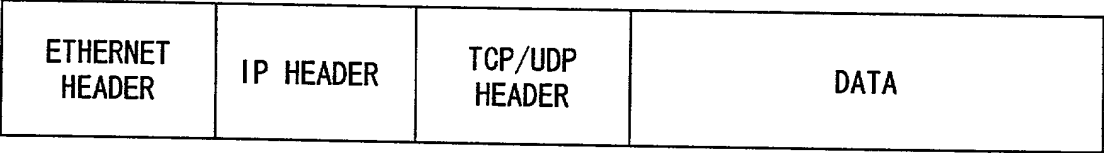


FIG. 4

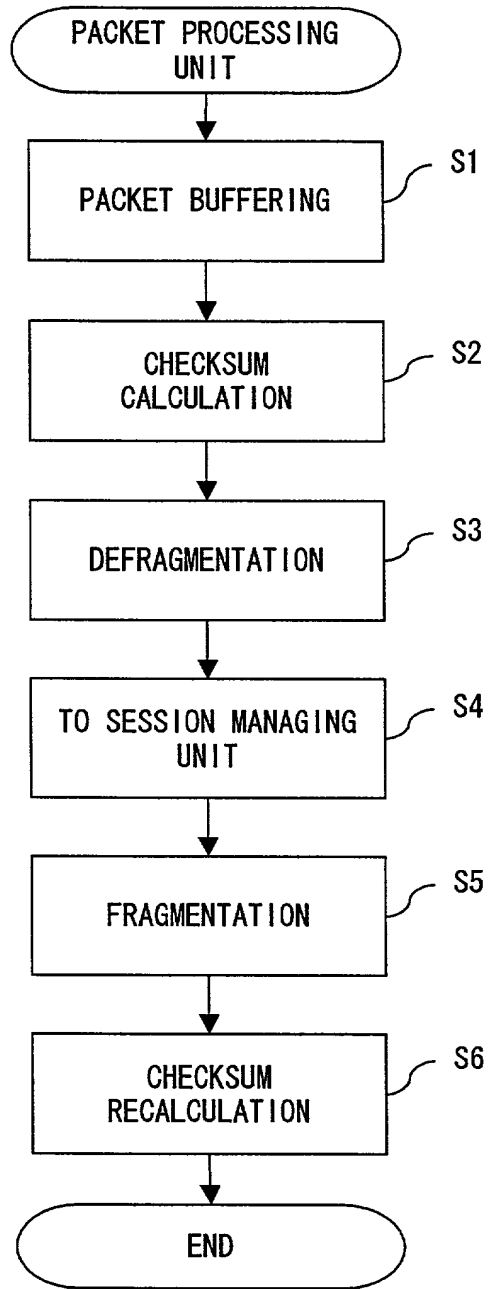


FIG. 5

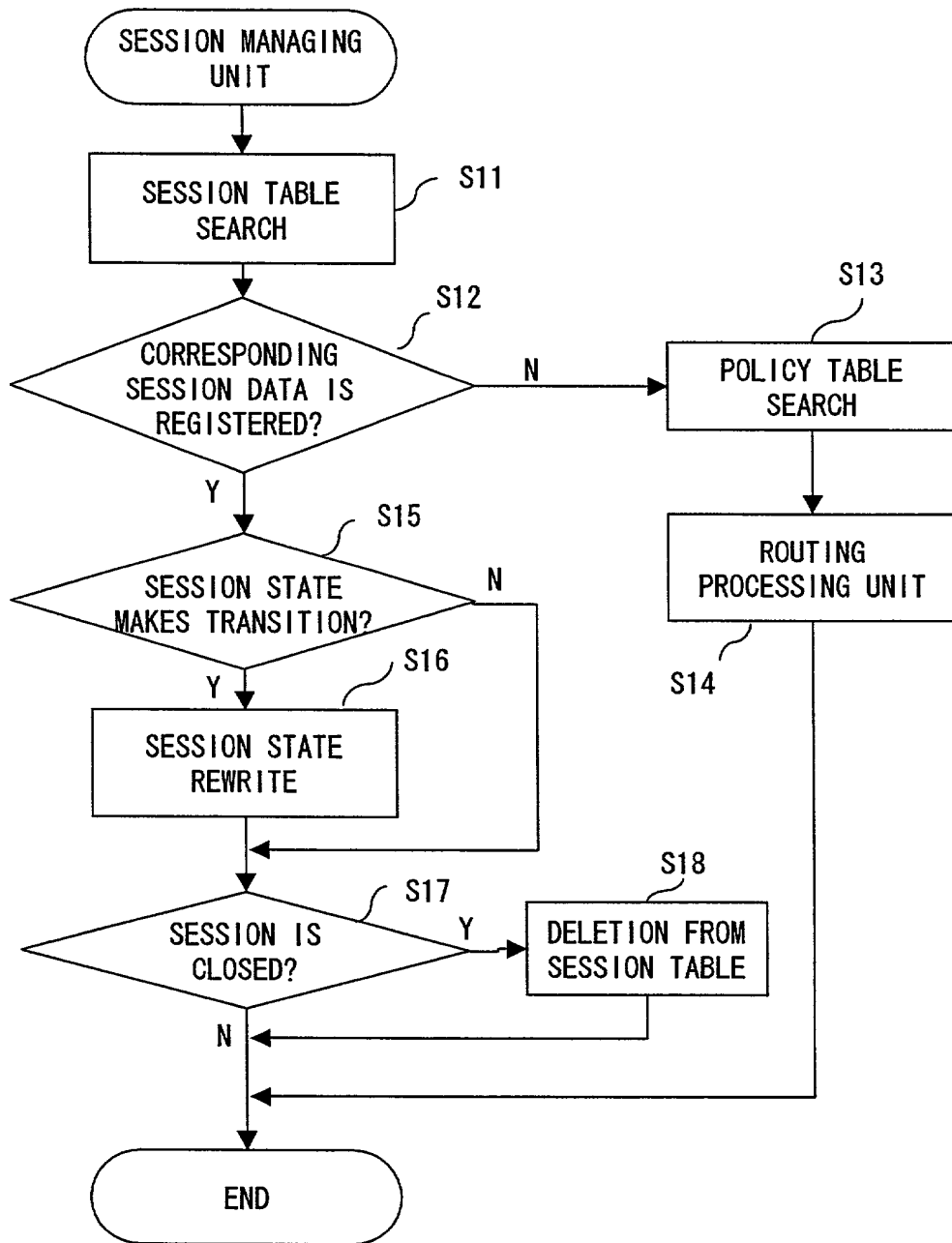


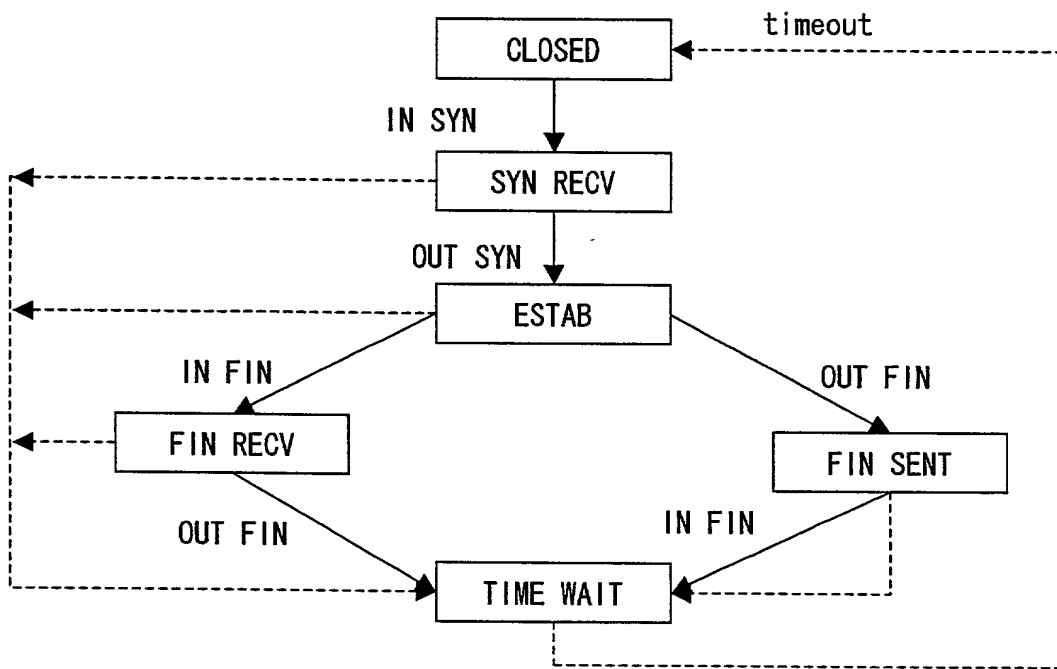
FIG. 6

SESSION TABLE 22a

SESSION ID	SESSION SEARCH KEY					SESSION STATE	OUTPUT DESTINATION
	SOURCE IP ADDRESS	SOURCE PORT NUMBER	PROTOCOL	DESTINATION IP ADDRESS	DESTINATION PORT NUMBER		
0	192.168.100.14	13200	TCP	192.168.10.5	8080	ESTAB	
1	192.168.10.5	8080	TCP	192.168.100.14	13200	ESTAB	
2	192.168.100.100	http	TCP	10.25.1.230	9250	IN SYN	
3	10.25.1.230	9250	TCP	192.168.100.75	http	IN SYN	

FIG. 7

(TCP)



F I G. 8

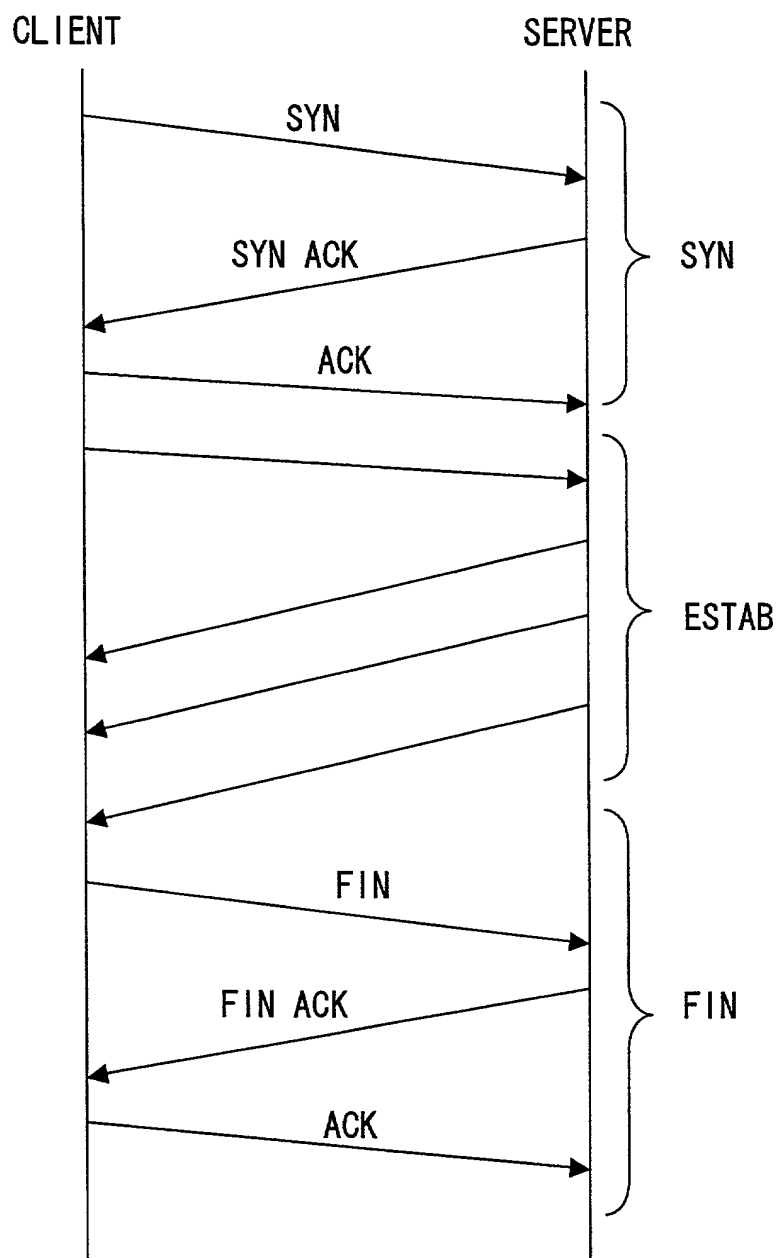
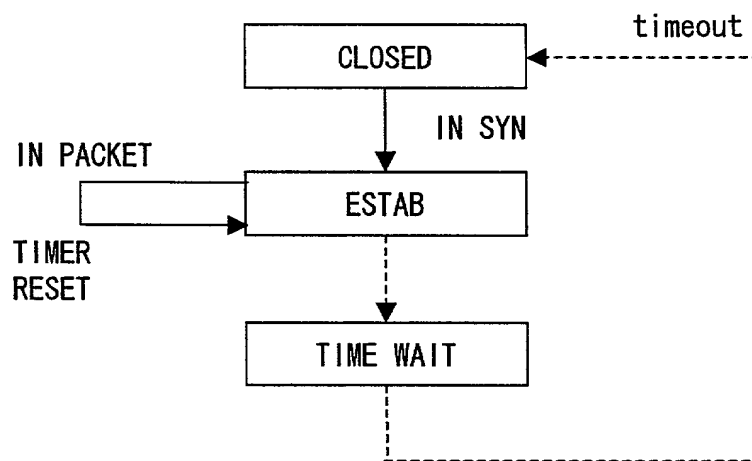


FIG. 9

2025091.01.2302

(UDP)



F I G. 1 0

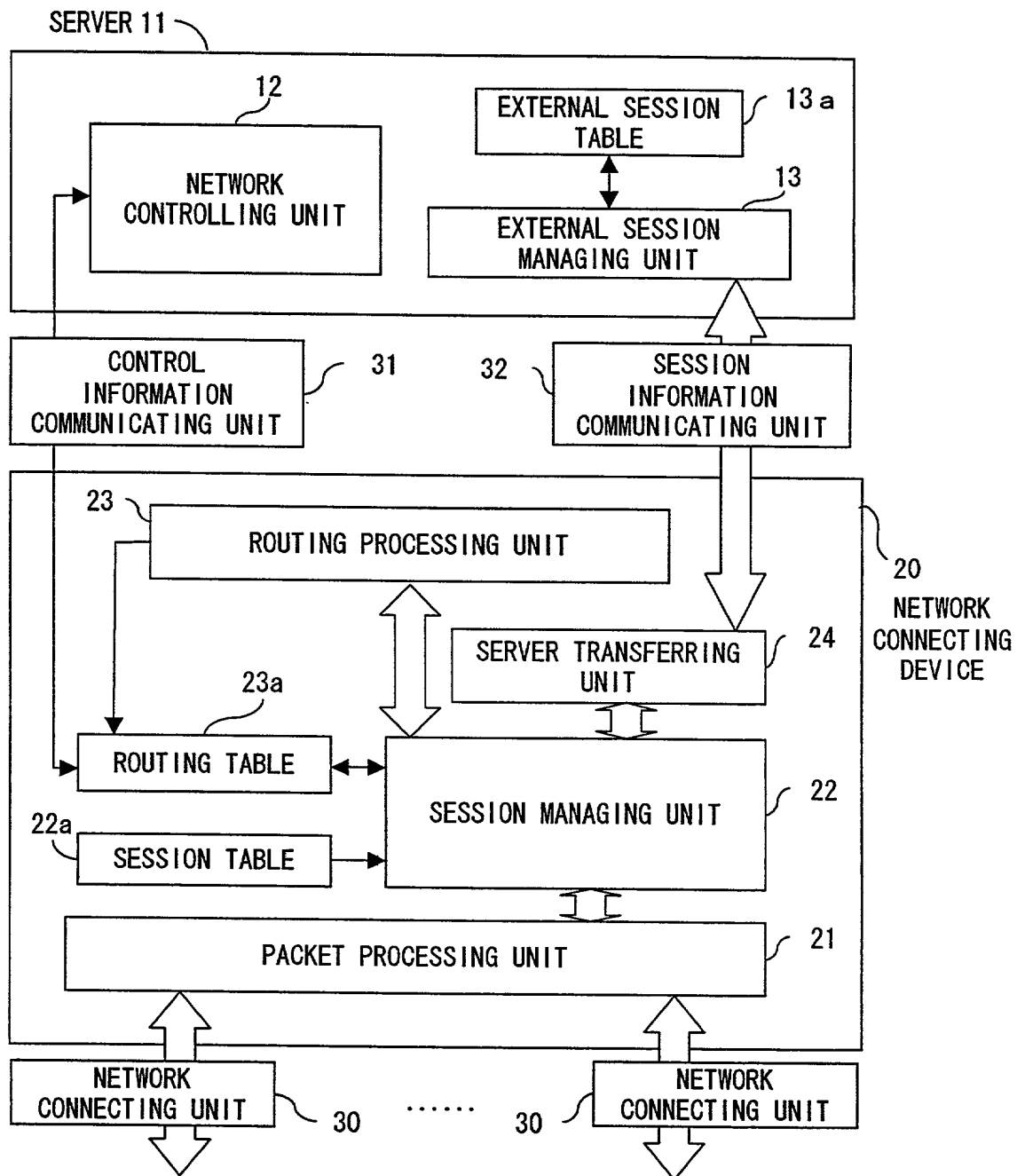


FIG. 11

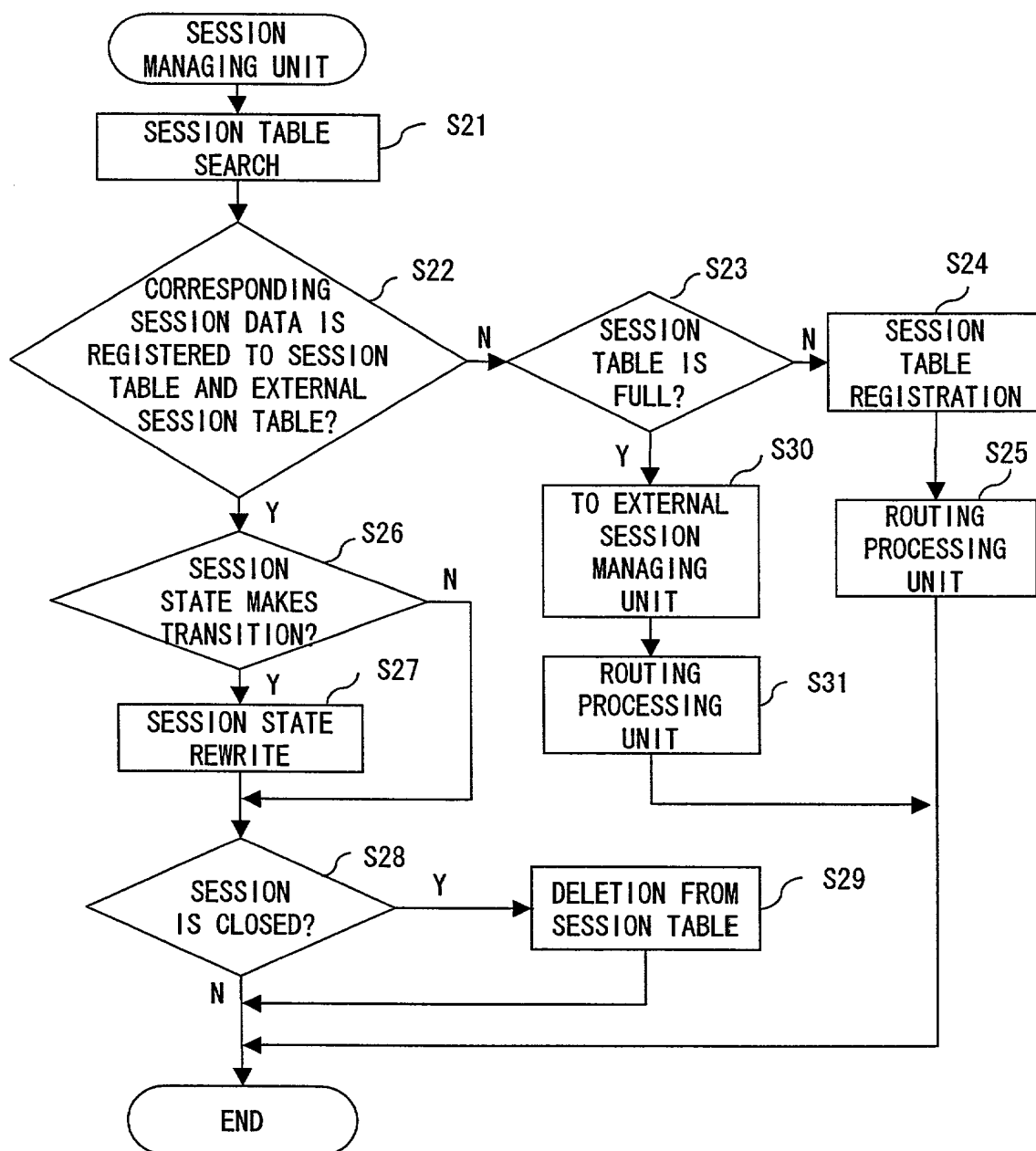


FIG. 12

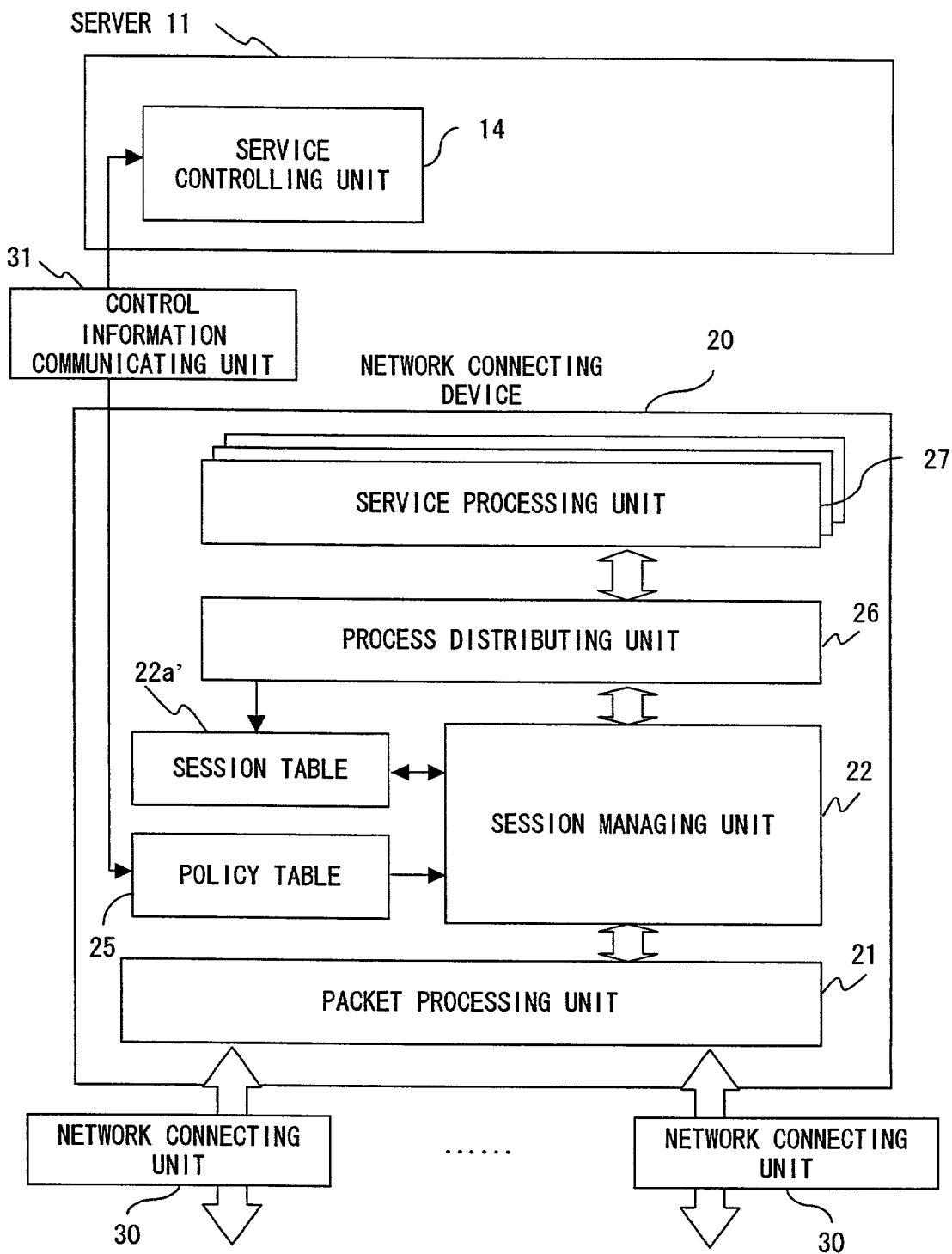


FIG. 13

SESSION TABLE 22a'

SESSION ID	0	1	2	3
SOURCE IP ADDRESS	192. 168. 100. 14	192. 168. 10. 5	192. 168. 100. 100	10. 25. 1. 230
SOURCE PORT NUMBER	13200	8080	http	9250
PROTOCOL	TCP	TCP	TCP	TCP
DESTINATION IP ADDRESS	192. 168. 10. 5	192. 168. 100. 14	10. 25. 1. 230	192. 168. 100. 75
DESTINATION PORT NUMBER	8080	13200	9250	http
INPUT INTERFACE	0	1	0	1
SESSION STATE	ESTAB	ESTAB	IN SYN	IN SYN
OUTPUT DESTINATION INTERFACE	1	0	1	0
APPLIED SERVICE TYPE	FILTERING AND PASSING	FILTERING AND PASSING	HEADER REWRITE	HEADER REWRITE
SERVICE-SPECIFIC INFORMATION	-	-	Src:192. 168. 100. 75	Dst:192. 168. 100. 100
CONSISTENCY DURATION (ms)	1000	1000	3000	3000
EVENT FLAG (PACKET)	OFF	OFF	OFF	OFF
EVENT FLAG (HEADER)	ON	ON	OFF	OFF

FIG. 14

POLICY TABLE 25

POLICY ID		0	1
POLICY SEARCH KEY	SOURCE IP ADDRESS	Any	Any
	SOURCE PORT NUMBER	Any	Any
	PROTOCOL	Any	TCP
	DESTINATION IP ADDRESS	GW	192. 168. 100. 75
	DESTINATION PORT NUMBER	Any	http
APPLIED SERVICE TYPE		FILTERING AND DISCARDING	LOAD BALANCING
SERVICE-SPECIFIC INFORMATION		-	DISTRIBUTION DESTINATION 1: 192. 168. 100. 100 DISTRIBUTION DESTINATION 2: 192. 168. 100. 110 DISTRIBUTION DESTINATION 3: 192. 168. 100. 120 DISTRIBUTION DESTINATION 4: 192. 168. 100. 130 DISTRIBUTION METHOD: ROUND ROBIN
PRIORITY		5000	1000
GROUP ID		6	32
EVENT FLAG (PACKET)		OFF	OFF
EVENT FLAG (HEADER)		ON	OFF
CONSISTENCY DURATION (ms)		1000	3000
NUMBER OF POLICY HITS		2	2

F I G. 1 5

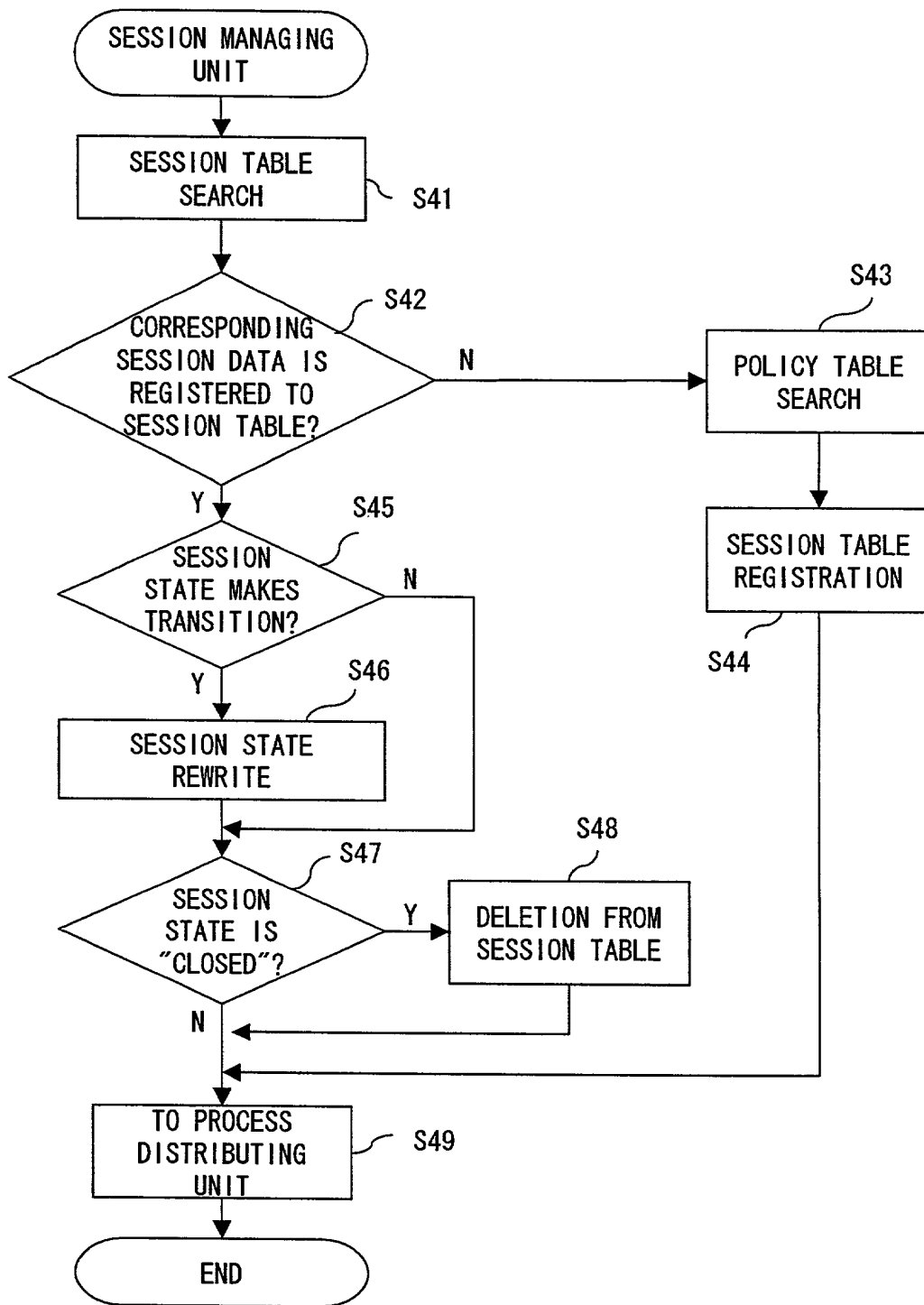


FIG. 16

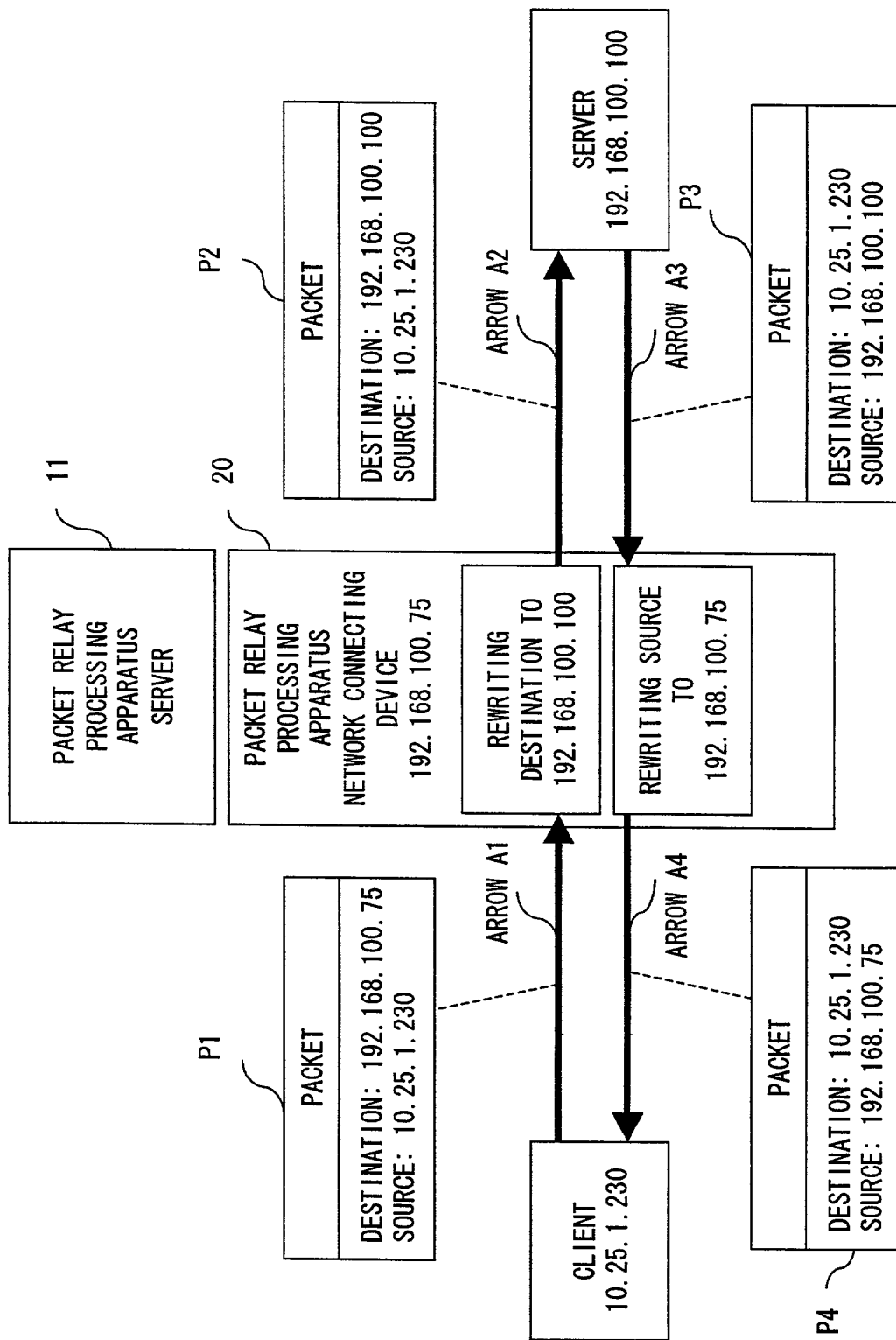


FIG. 18

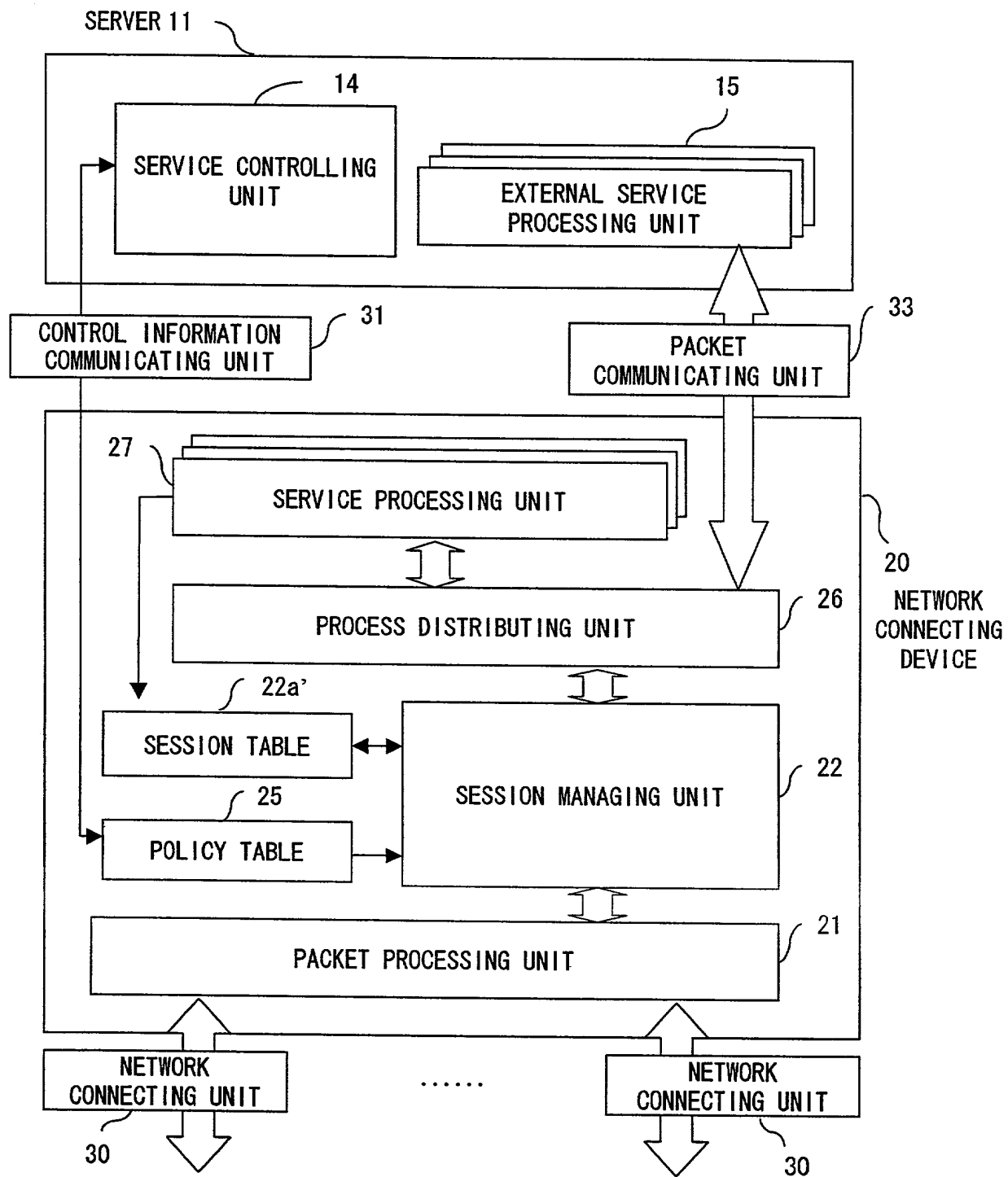


FIG. 19

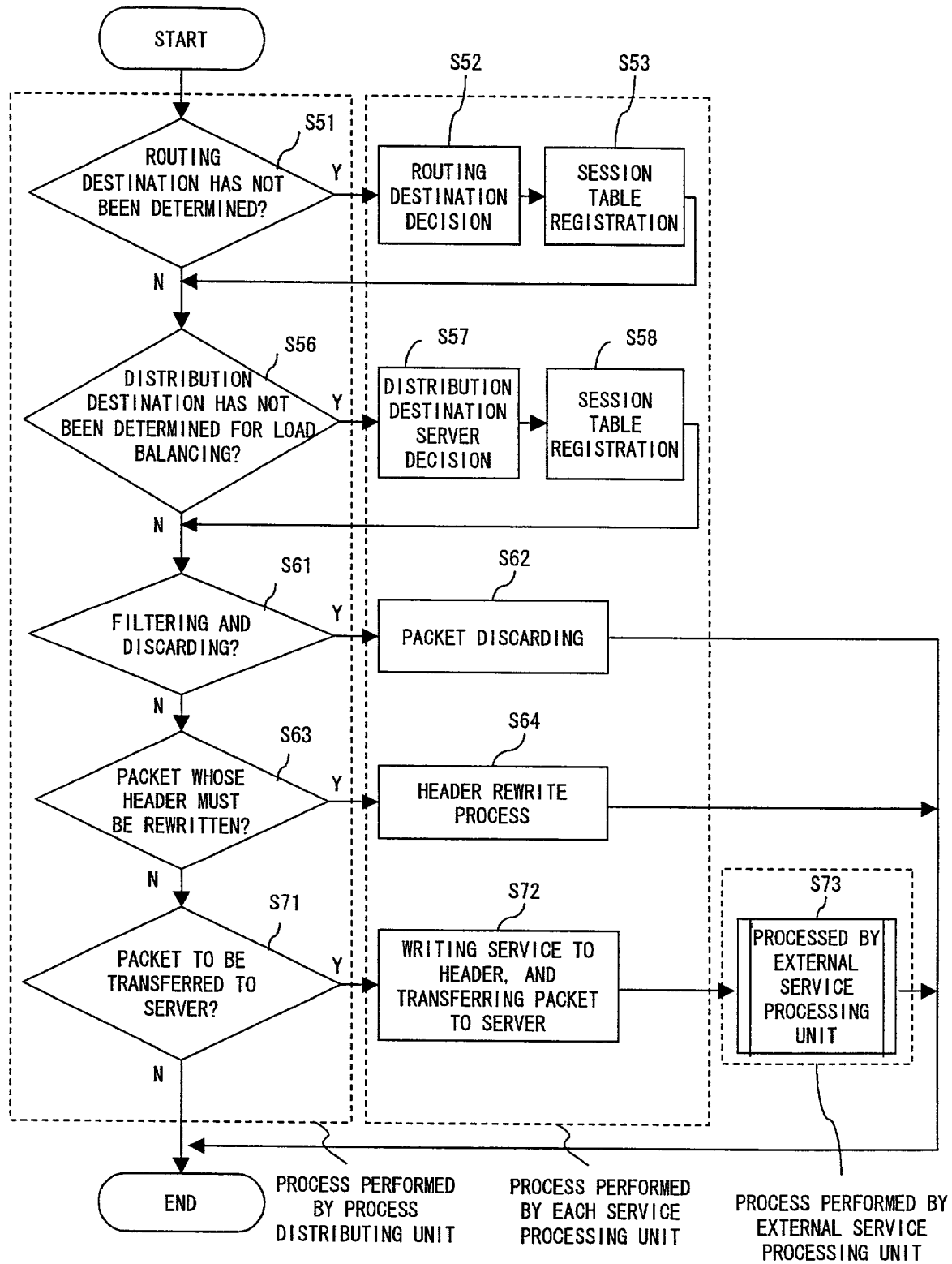


FIG. 20

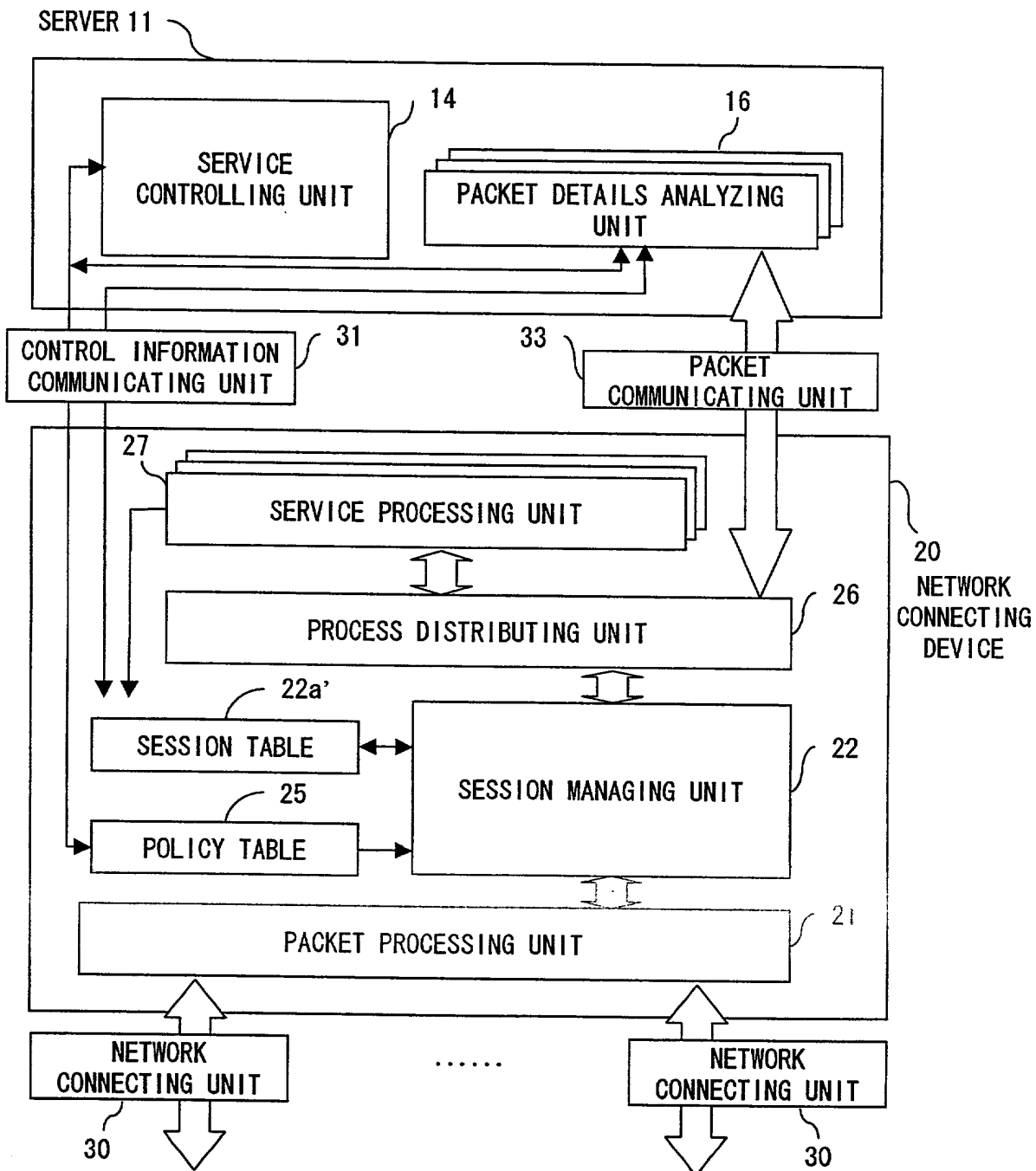


FIG. 21

SESSION TABLE 22a'

SESSION ID	0	1	2	3	4	5
SOURCE IP ADDRESS	192. 168. 50. 5	192. 168. 1. 5	192. 168. 30. 30	192. 168. 200. 1	192. 168. 200. 1	192. 168. 200. 10
SOURCE PORT NUMBER	16321	8080	11950	http	3333	8080
PROTOCOL	TCP	TCP	TCP	TCP	TCP	TCP
DESTINATION IP ADDRESS	192. 168. 1. 5	192. 168. 50. 5	192. 168. 200. 1	192. 168. 30. 30	192. 168. 200. 10	192. 168. 200. 1
DESTINATION PORT NUMBER	8080	16321	http	11950	8080	3333
INPUT INTERFACE	0	1	0	Server	Server	1
SESSION STATE	IN SYN	IN SYN	ESTAB	ESTAB	IN SYN	IN SYN
OUTPUT DESTINATION INTERFACE	1	0	-	0	1	-
APPLIED SERVICE TYPE	SERVER TRANSFER: ON URL FILTERING	SERVER TRANSFER: ON URL FILTERING	SERVER TRANSFER: ON URL LOAD BALANCING	SERVER TRANSFER: ON URL LOAD BALANCING	SERVER TRANSFER: ON URL LOAD BALANCING	SERVER TRANSFER: ON URL LOAD BALANCING
SOURCE IP ADDRESS FOR TRANSLATION	-	-	-	-	-	-
SOURCE PORT NUMBER FOR TRANSLATION	-	-	-	-	-	-
DESTINATION IP ADDRESS FOR TRANSLATION	-	-	-	-	-	-
DESTINATION PORT NUMBER FOR TRANSLATION	-	-	-	-	-	-
SEQUENCE NUMBER DIFFERENCE	-	-	-	-	-	-
ACK NUMBER DIFFERENCE	-	-	-	-	-	-
CONSISTENCY DURATION (ms)	1000	1000	3000	3000	3000	3000
EVENT FLAG (PACKET)	OFF	OFF	OFF	OFF	OFF	OFF
EVENT FLAG (HEADER)	OFF	OFF	OFF	OFF	OFF	OFF

FIG. 22

URL LOAD BALANCING

SESSION TABLE 22a'

SESSION ID		6	7
SESSION SEARCH KEY	SOURCE IP ADDRESS	192.168.2.100	192.168.25.250
	SOURCE PORT NUMBER	3001	21
	PROTOCOL	TCP	TCP
	DESTINATION IP ADDRESS	192.168.25.250	192.168.2.100
	DESTINATION PORT NUMBER	21	3001
	INPUT INTERFACE	0	1
SESSION STATE		IN SYN	IN SYN
OUTPUT DESTINATION INTERFACE		1	0
APPLIED SERVICE TYPE		SERVER TRANSFER: ON FTP FILTERING	SERVER TRANSFER: ON FTP FILTERING
SERVICE-SPECIFIC INFORMATION	SOURCE IP ADDRESS FOR TRANSLATION	-	-
	SOURCE PORT NUMBER FOR TRANSLATION	-	-
	DESTINATION IP ADDRESS FOR TRANSLATION	-	-
	DESTINATION PORT NUMBER FOR TRANSLATION	-	-
	SEQUENCE NUMBER DIFFERENCE	-	-
	ACK NUMBER DIFFERENCE	-	-
CONSISTENCY DURATION (ms)		1000	1000
EVENT FLAG (PACKET)		OFF	OFF
EVENT FLAG (HEADER)		OFF	OFF

F I G. 23

SESSION TABLE 22a'

SESSION ID	0	1	2	5
SOURCE IP ADDRESS	192.168.50.5	192.168.1.5	192.168.30.30	192.168.200.10
SOURCE PORT NUMBER	16321	8080	11950	8080
PROTOCOL	TCP	TCP	TCP	TCP
DESTINATION IP ADDRESS	192.168.1.5	192.168.50.5	192.168.200.1	192.168.200.1
DESTINATION PORT NUMBER	8080	16321	http	3333
INPUT INTERFACE	0	1	0	1
SESSION STATE	ESTAB	ESTAB	ESTAB	ESTAB
OUTPUT DESTINATION INTERFACE	1	0	1	0
APPLIED SERVICE TYPE	SERVER TRANSFER: OFF FILTERING AND PASSING	SERVER TRANSFER: OFF FILTERING AND PASSING	SERVER TRANSFER: OFF HEADER REWRITE	SERVER TRANSFER: OFF HEADER REWRITE
SOURCE IP ADDRESS FOR TRANSLATION	-	-	-	192.168.200.1
SOURCE PORT NUMBER FOR TRANSLATION	-	-	-	http
DESTINATION IP ADDRESS FOR TRANSLATION	-	-	192.168.200.10	192.168.30.30
DESTINATION PORT NUMBER FOR TRANSLATION	-	-	8080	11950
SEQUENCE NUMBER DIFFERENCE	-	-	2334	14733
ACK NUMBER DIFFERENCE	-	-	54654	8002
CONSISTENCY DURATION (ms)	1000	1000	3000	3000
EVENT FLAG (PACKET)	OFF	OFF	OFF	OFF
EVENT FLAG (HEADER)	OFF	OFF	OFF	OFF

FIG. 24

SESSION TABLE 22a'

SESSION ID	6	7	8	9
SOURCE IP ADDRESS	192. 168. 2. 100	192. 168. 25. 250	192. 168. 2. 100	192. 168. 25. 250
SOURCE PORT NUMBER	3001	21	3002	20
PROTOCOL	TCP	TCP	TCP	TCP
DESTINATION IP ADDRESS	192. 168. 25. 250	192. 168. 2. 100	192. 168. 25. 250	192. 168. 2. 100
DESTINATION PORT NUMBER	21	3001	20	3002
INPUT INTERFACE	0	1	0	1
SESSION STATE	ESTAB	ESTAB	ESTAB	ESTAB
OUTPUT DESTINATION INTERFACE	1	0	1	0
APPLIED SERVICE TYPE	SERVER TRANSFER: ON FTP FILTERING	SERVER TRANSFER: ON FTP FILTERING	FILTERING AND PASSING	FILTERING AND PASSING
SOURCE IP ADDRESS FOR TRANSLATION	-	-	-	-
SOURCE PORT NUMBER FOR TRANSLATION	-	-	-	-
DESTINATION IP ADDRESS FOR TRANSLATION	-	-	-	-
DESTINATION PORT NUMBER FOR TRANSLATION	-	-	-	-
SEQUENCE NUMBER DIFFERENCE	-	-	-	-
ACK NUMBER DIFFERENCE	-	-	-	-
CONSISTENCY DURATION (ms)	1000	1000	3000	3000
EVENT FLAG (PACKET)	OFF	OFF	OFF	OFF
EVENT FLAG (HEADER)	OFF	OFF	OFF	OFF

FIG. 25

CONTROL CONNECTION

DATA CONNECTION

SESSION ID	0	1	2	3	4	5	6	7
SESSION SEARCH KEY	SOURCE IP ADDRESS	192. 168. 50. 5	192. 168. 1. 5	192. 168. 30. 30	192. 168. 200. 1	192. 168. 200. 1	192. 168. 2. 100	192. 168. 25. 250
	SOURCE PORT NUMBER	16321	8080	11950	http	3333	8080	3001
	PROTOCOL	TCP	TCP	TCP	TCP	TCP	TCP	TCP
	DESTINATION IP ADDRESS	192. 168. 1. 5	192. 168. 50. 5	192. 168. 200. 1	192. 168. 30. 30	192. 168. 200. 1	192. 168. 25. 250	192. 168. 2. 100
	DESTINATION PORT NUMBER	8080	16321	http	11950	8080	3333	21
SESSION STATE	INPUT INTERFACE	1	0	Server	Server	Server	1	0
	SESSION STATE	IN SYN	IN SYN	ESTAB	IN SYN	IN SYN	IN SYN	IN SYN
ASSOCIATED SESSION		—	4	5	2	3	—	—
APPLIED SERVICE TYPE	SERVER	SERVER	SERVER	SERVER	SERVER	SERVER	SERVER	SERVER
	TRANSFER: ON URL FILTERING	TRANSFER: ON URL FILTERING	TRANSFER: ON URL LOAD BALANCING	TRANSFER: ON URL LOAD BALANCING	TRANSFER: ON URL LOAD BALANCING	TRANSFER: ON URL LOAD BALANCING	TRANSFER: ON FTP FILTERING	TRANSFER: ON FTP FILTERING

FIG. 26

TABLE FOR URL FILTERING

URL	PASSING/DISCARDING
<u>www. xxx. com</u>	DISCARDING
www2. yyy. co. jp	DISCARDING
bbb. ne. jp/~abc	DISCARDING
aaa. bbb. or. jp	DISCARDING

TABLE FOR FTP FILTERING

IP ADDRESS:PORT NUMBER	PASSING/DISCARDING
192. 168. 1. 5:Any	PASSING
192. 168. 2. 100:Any	PASSING
192. 168. 150. *:Any	PASSING
192. 168. 250. *:Any	PASSING

TABLE FOR URL LOAD BALANCING

URL	DISTRIBUTION DESTINATION
<u>www. aaa. com</u>	DISTRIBUTION DESTINATION 1: 192. 168. 200. 10 DISTRIBUTION DESTINATION 2: 192. 168. 200. 11 DISTRIBUTION DESTINATION 3: 192. 168. 200. 12 DISTRIBUTION DESTINATION 4: 192. 168. 200. 13 DISTRIBUTION METHOD: ROUND ROBIN
<u>www. bbb. co. jp</u>	DISTRIBUTION DESTINATION 1: 192. 168. 200. 20 DISTRIBUTION DESTINATION 2: 192. 168. 200. 21 DISTRIBUTION DESTINATION 3: 192. 168. 200. 22 DISTRIBUTION METHOD: ROUND ROBIN
www. ccc. ne. jp	DISTRIBUTION DESTINATION 1: 192. 168. 200. 30 DISTRIBUTION DESTINATION 2: 192. 168. 200. 31 DISTRIBUTION METHOD: ROUND ROBIN
www. ddd. ne. jp/~abc	DISTRIBUTION DESTINATION 1: 192. 168. 200. 40 DISTRIBUTION DESTINATION 2: 192. 168. 200. 41 DISTRIBUTION DESTINATION 3: 192. 168. 200. 42 DISTRIBUTION DESTINATION 4: 192. 168. 200. 43 DISTRIBUTION METHOD: ROUND ROBIN

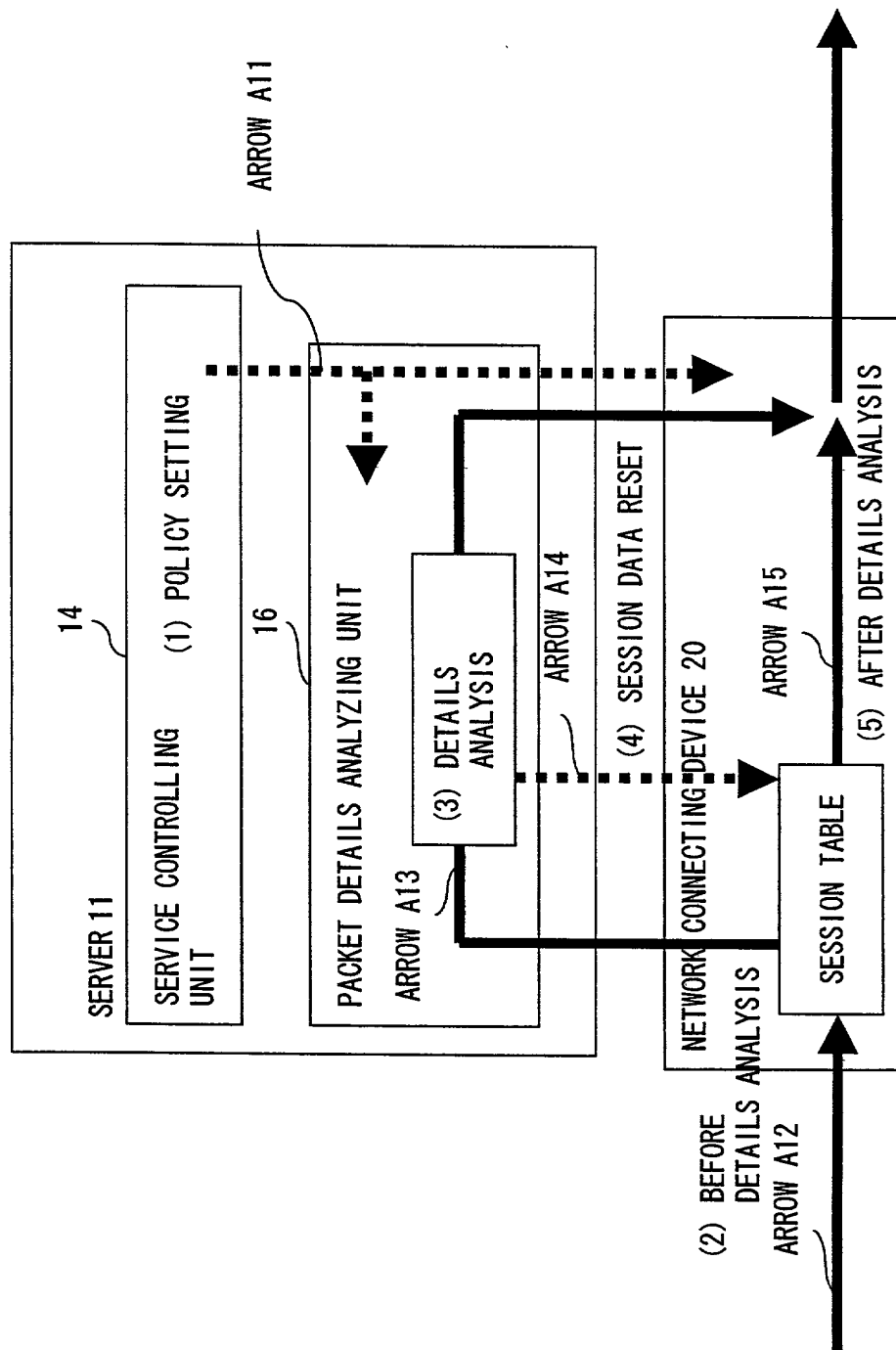
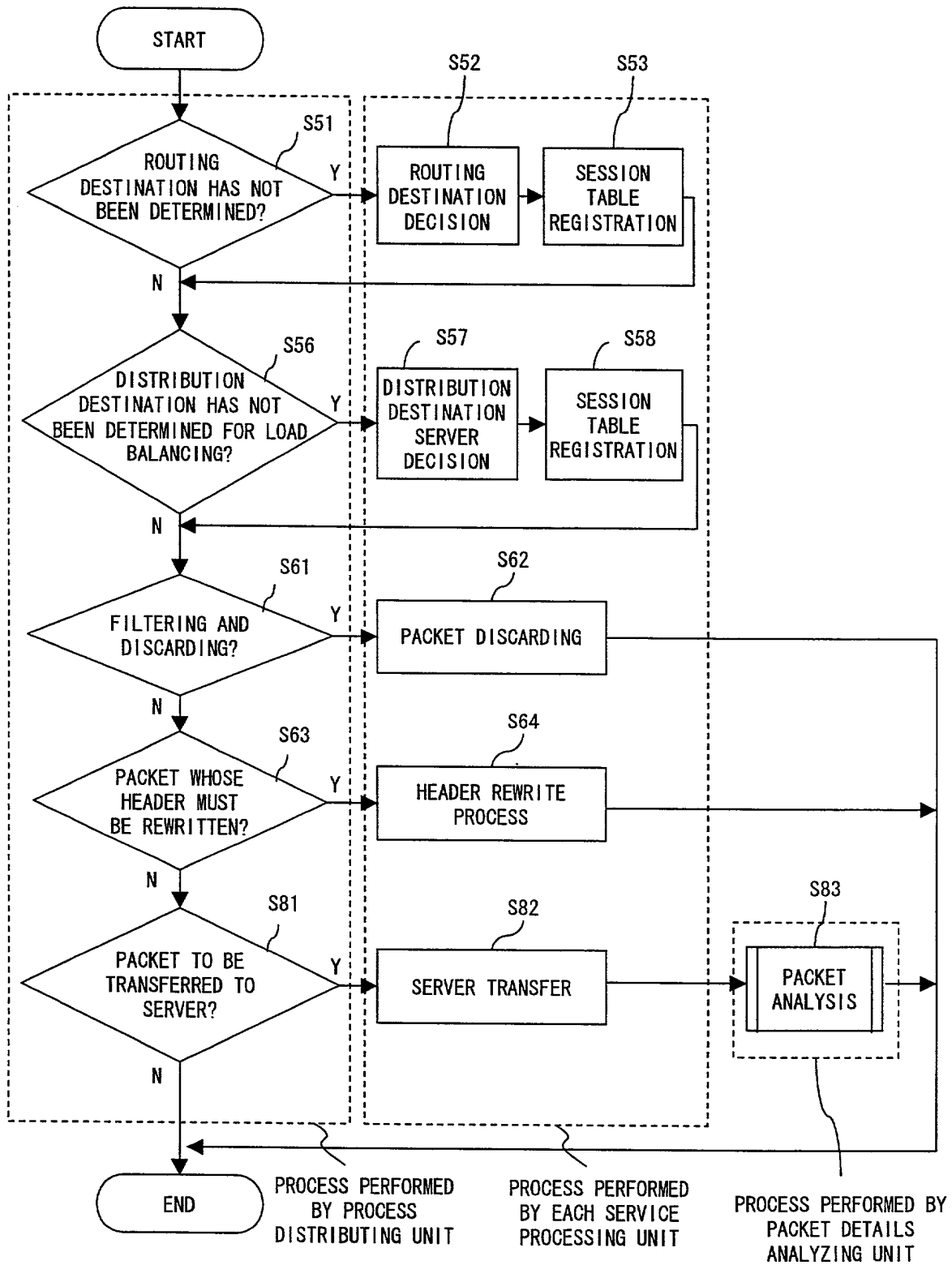


FIG. 28



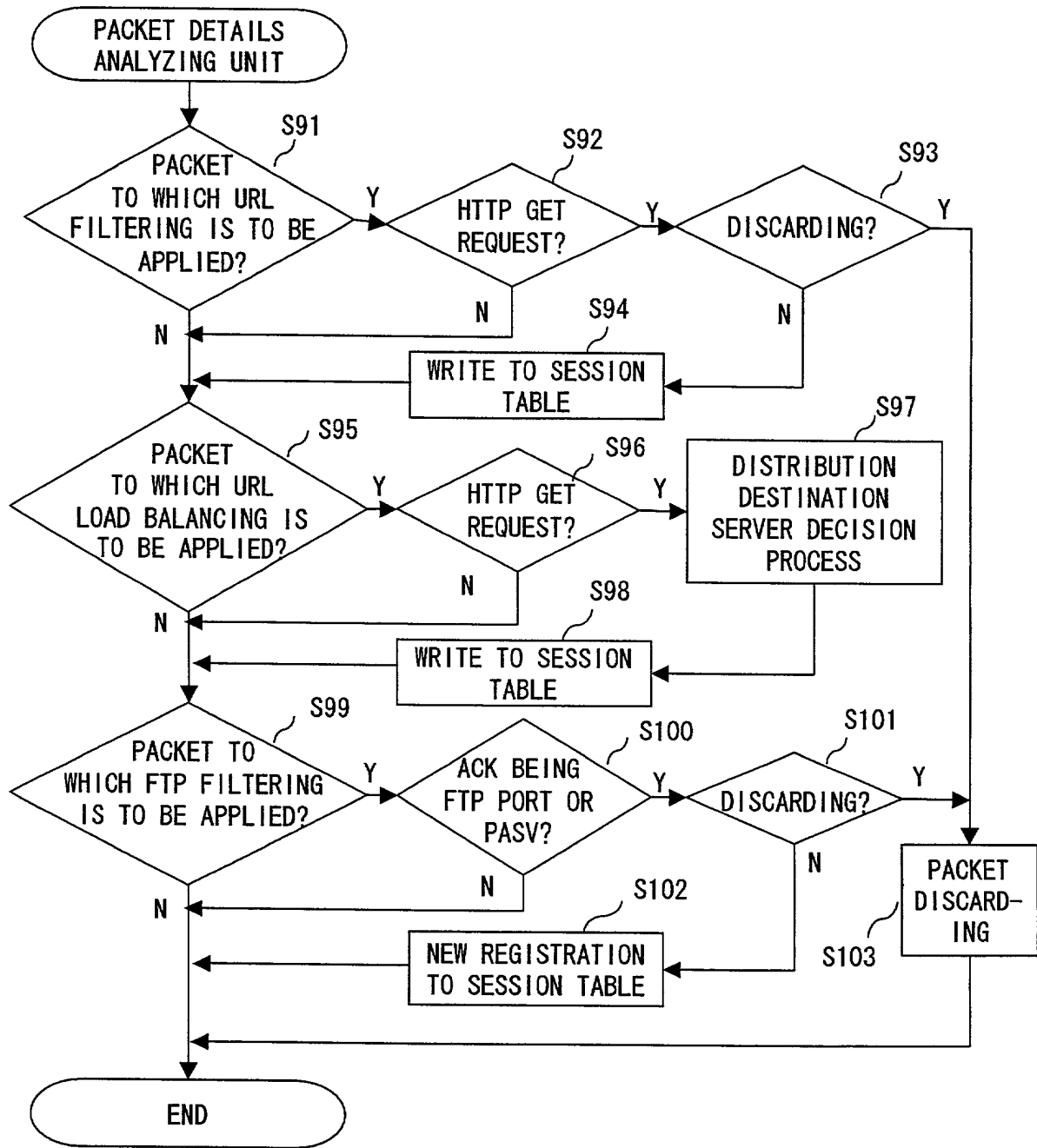


FIG. 30

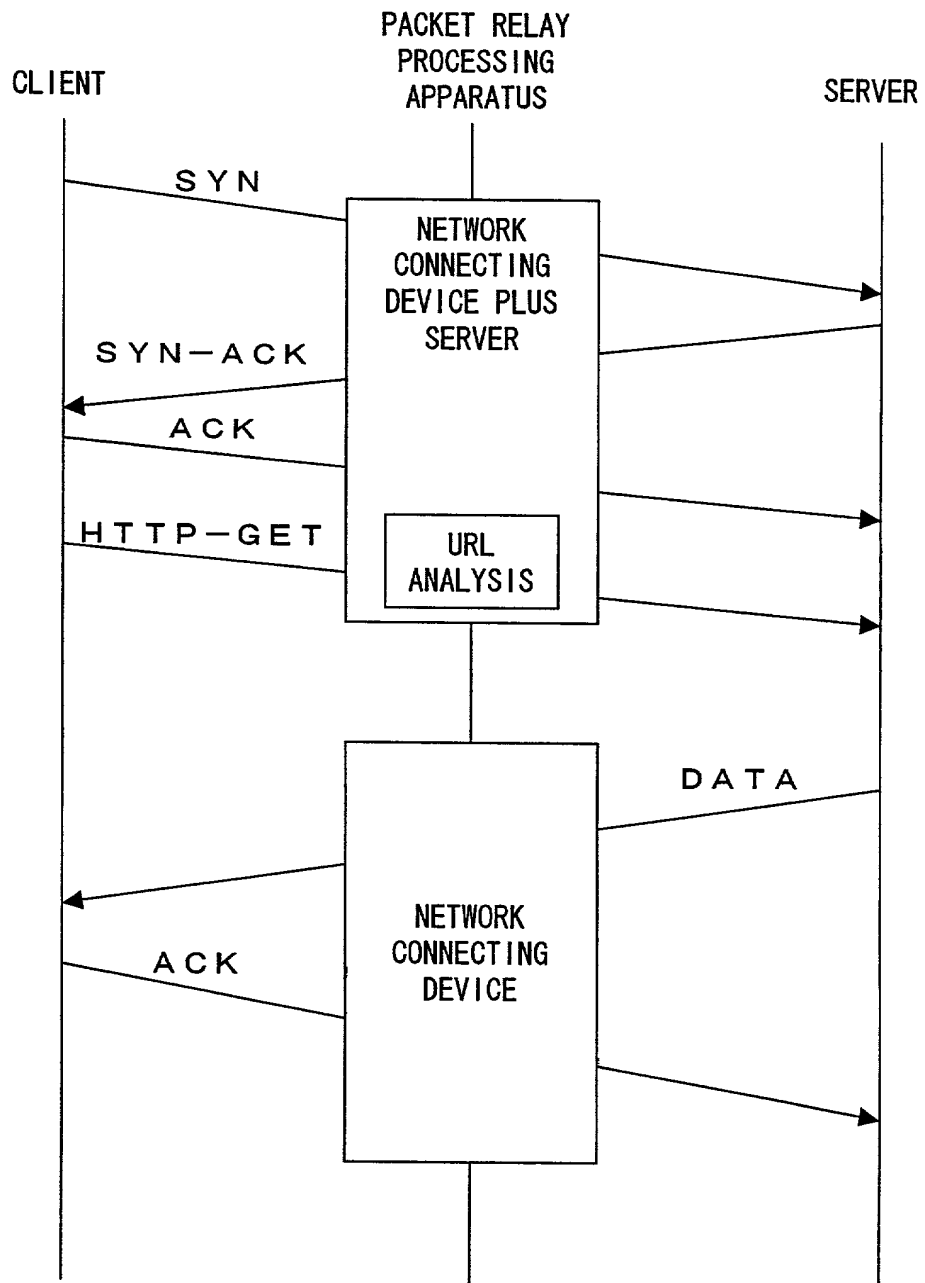


FIG. 31

202504.04202

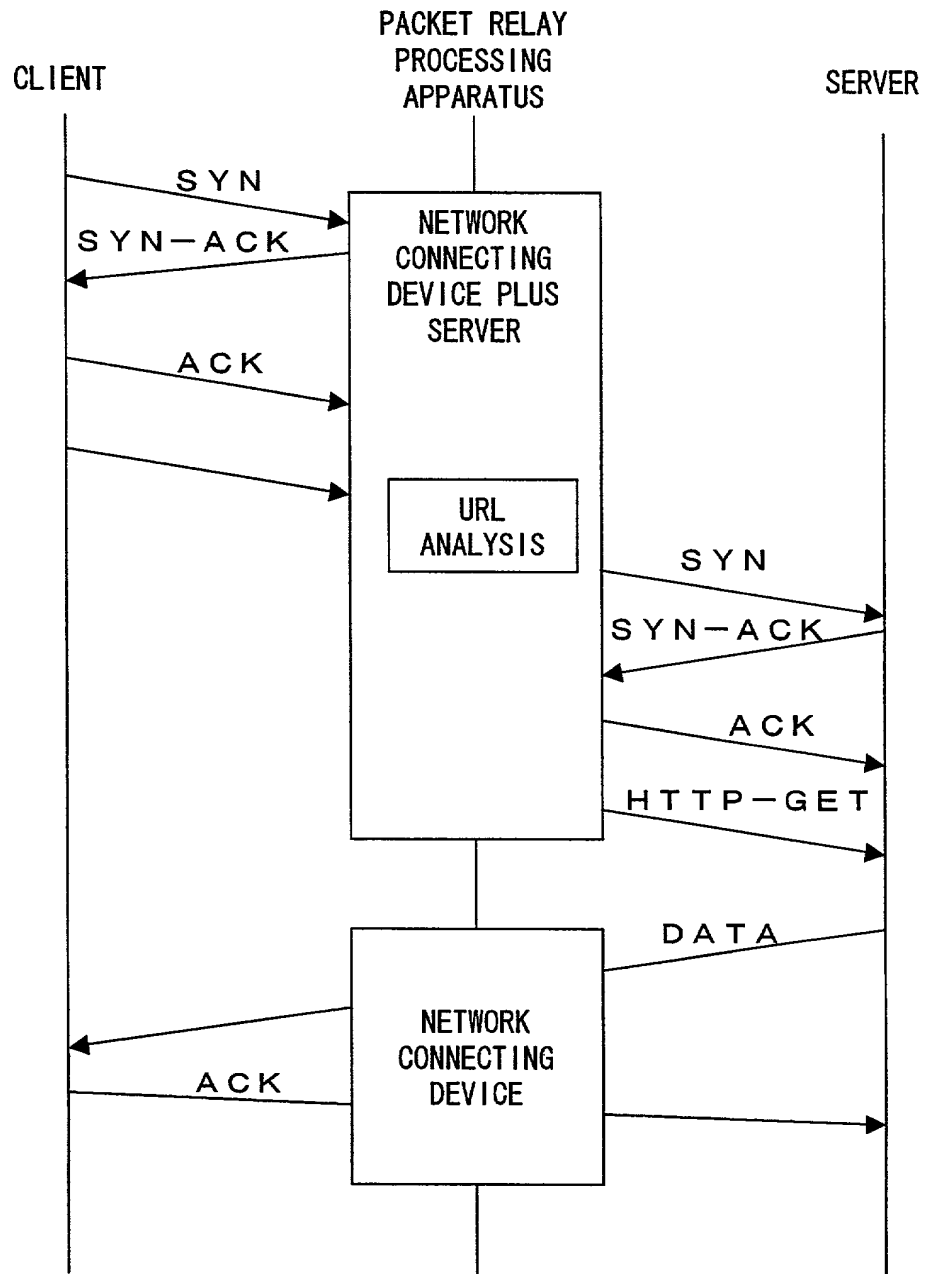


FIG. 32

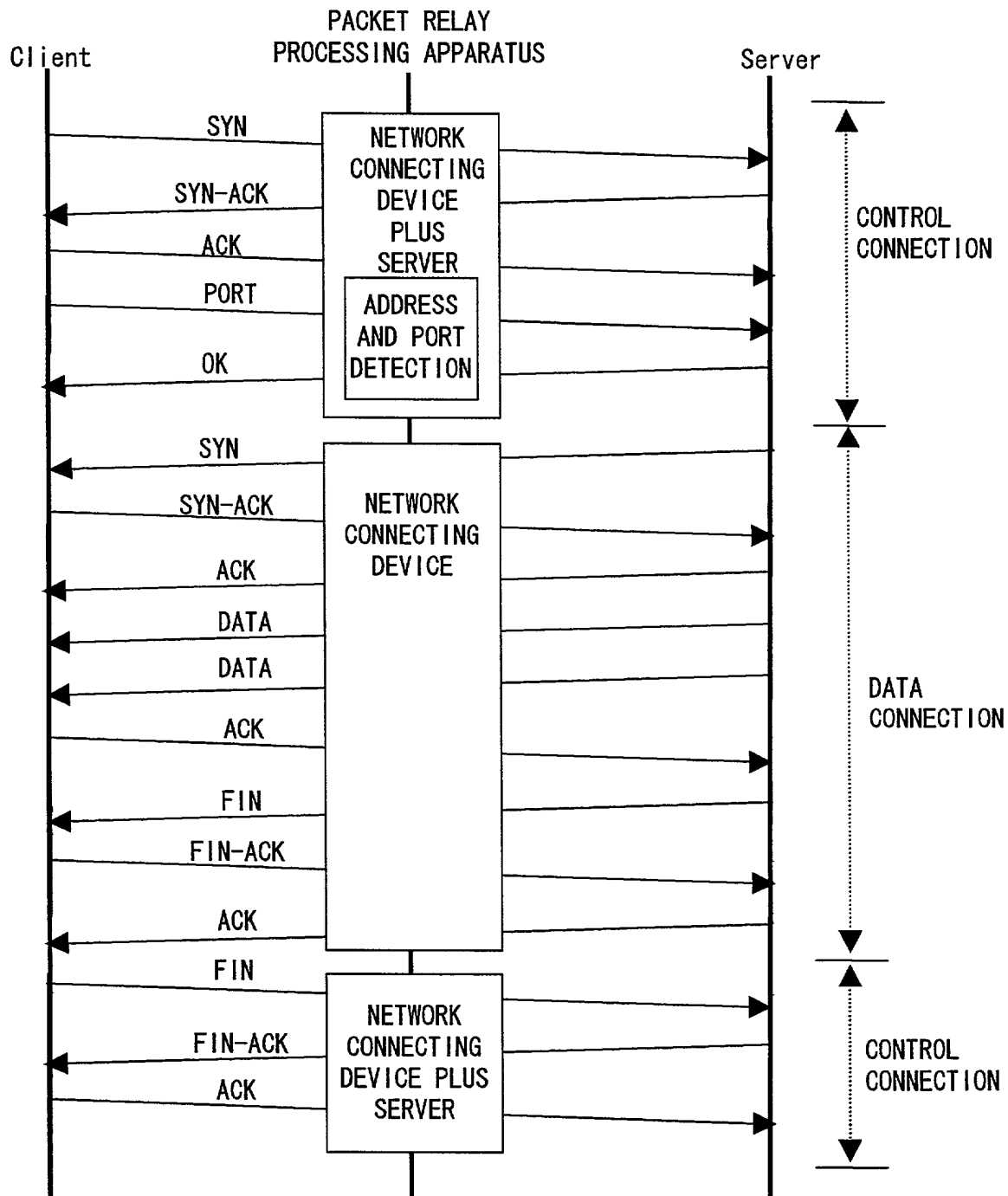


FIG. 33

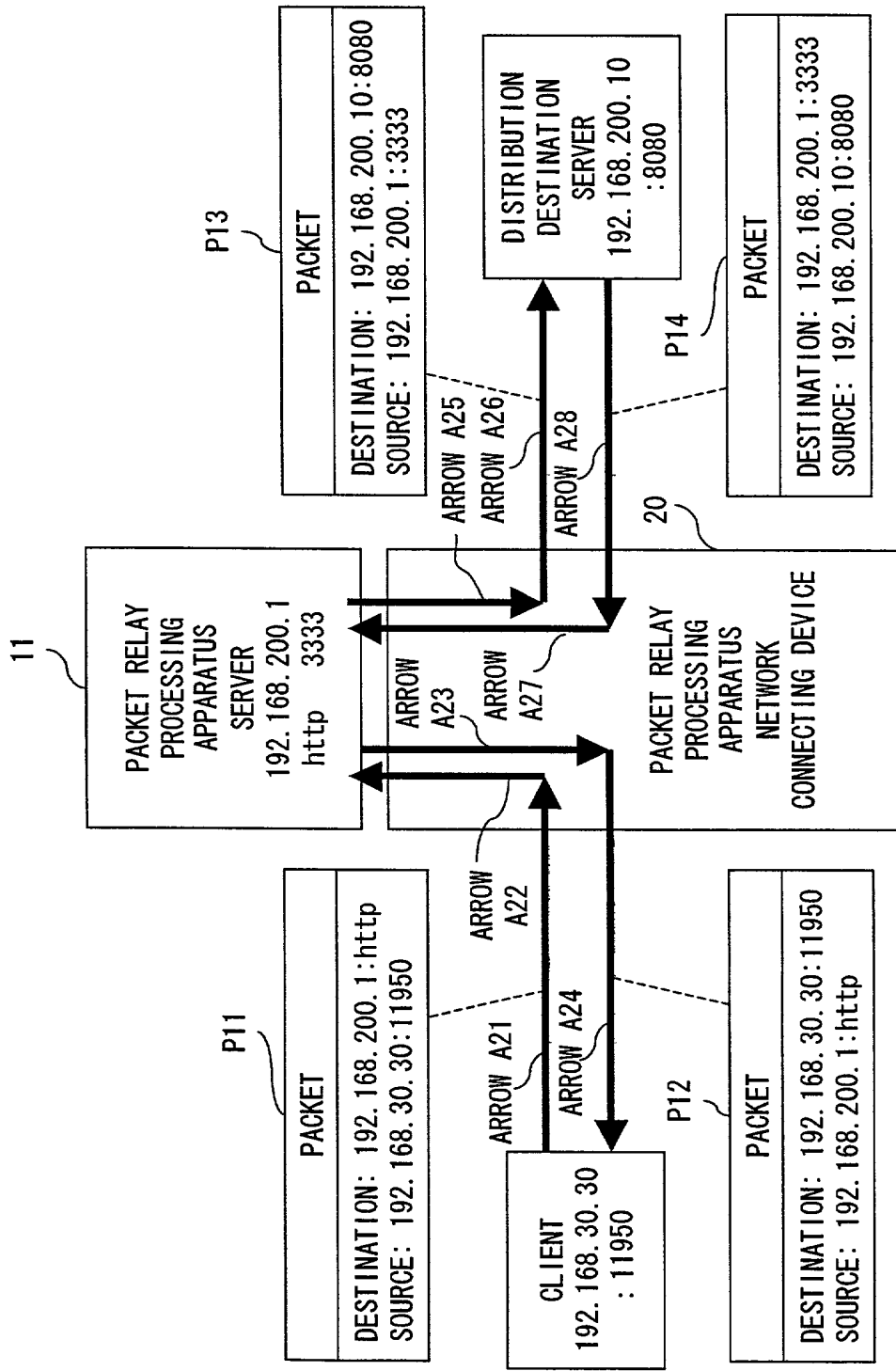


FIG. 34

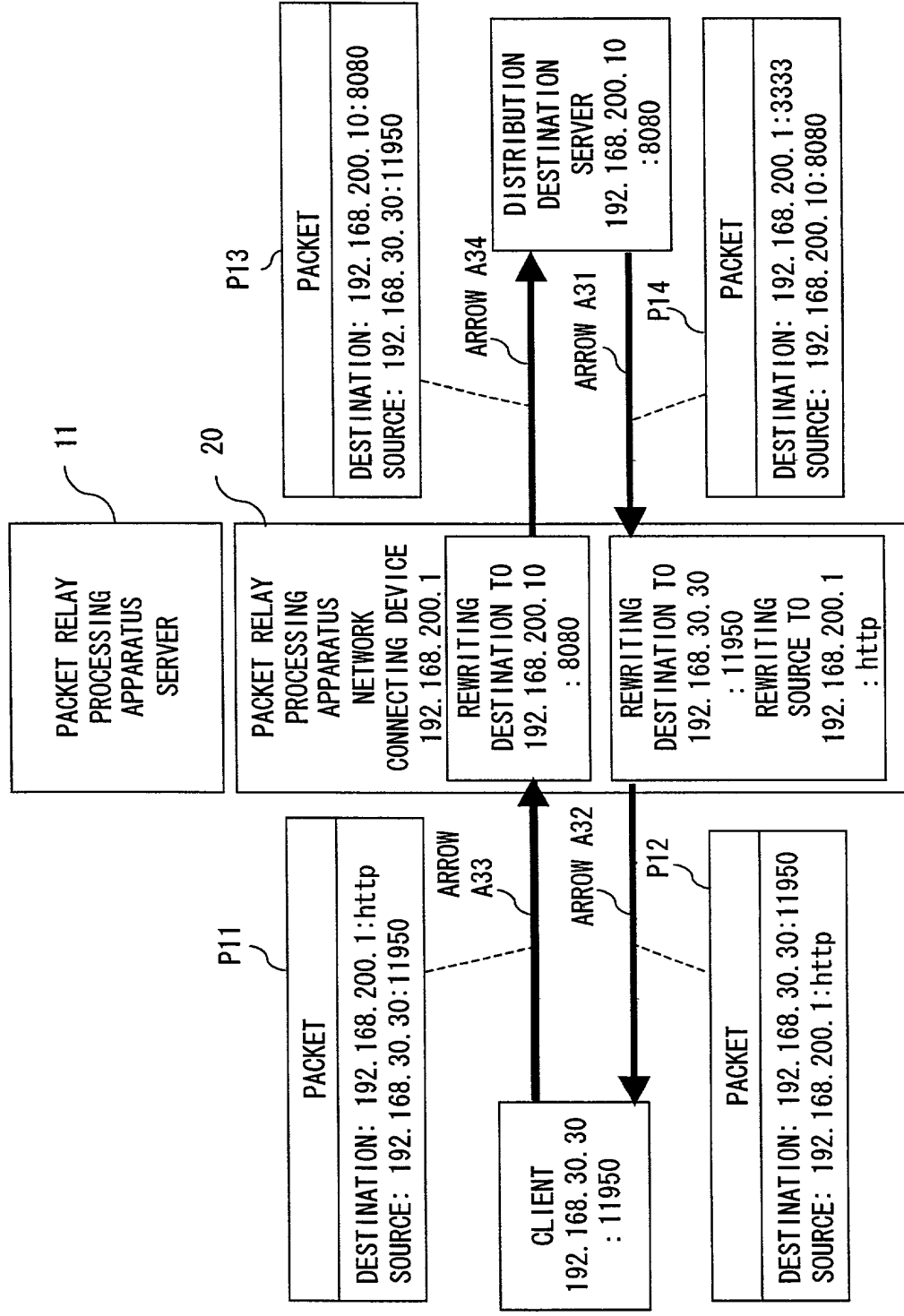


FIG. 35

GROUP ID	FLAG
0	0
1	0
2	1
⋮	⋮
255	0

1: VALID, 0: INVALID

F I G. 3 6

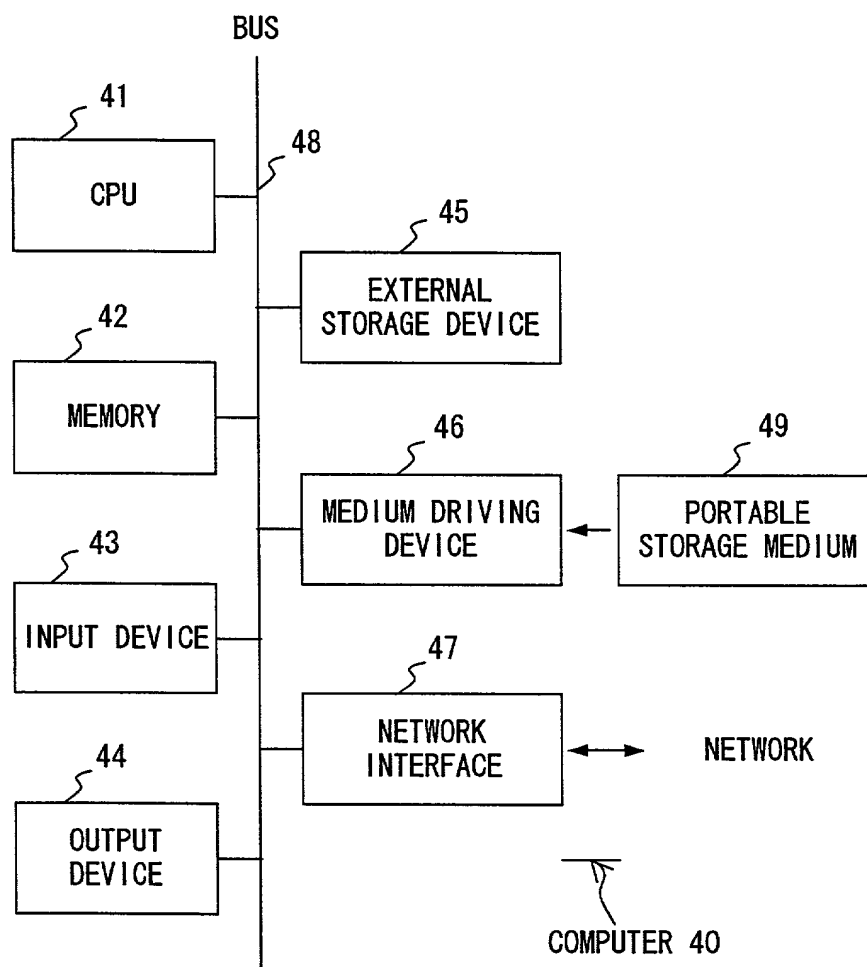


FIG. 37

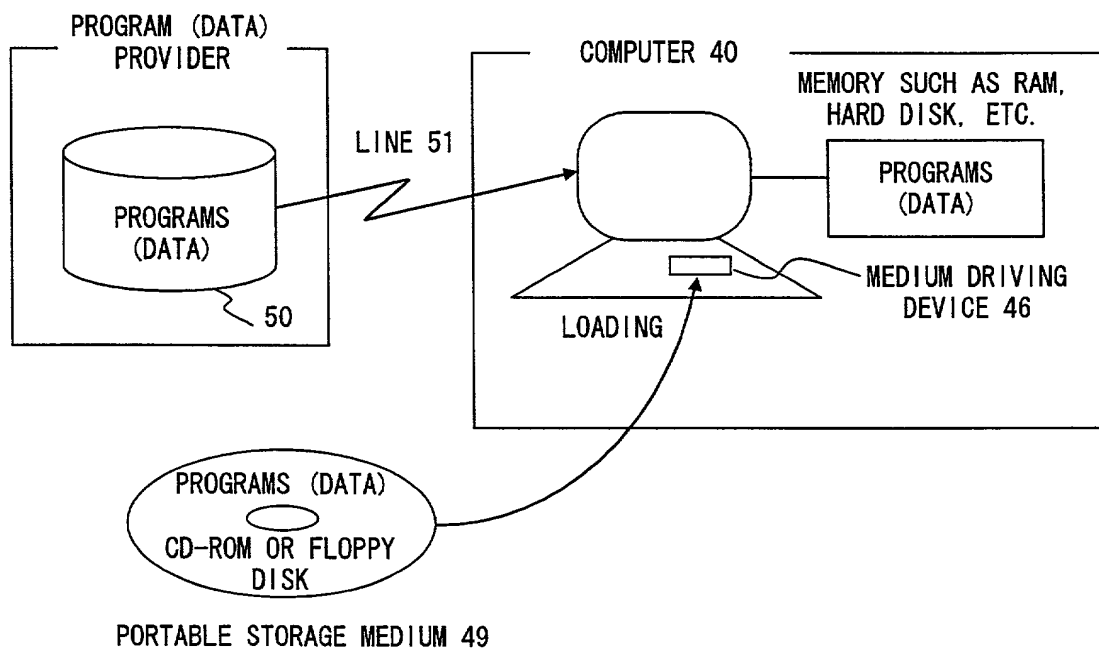


FIG. 38

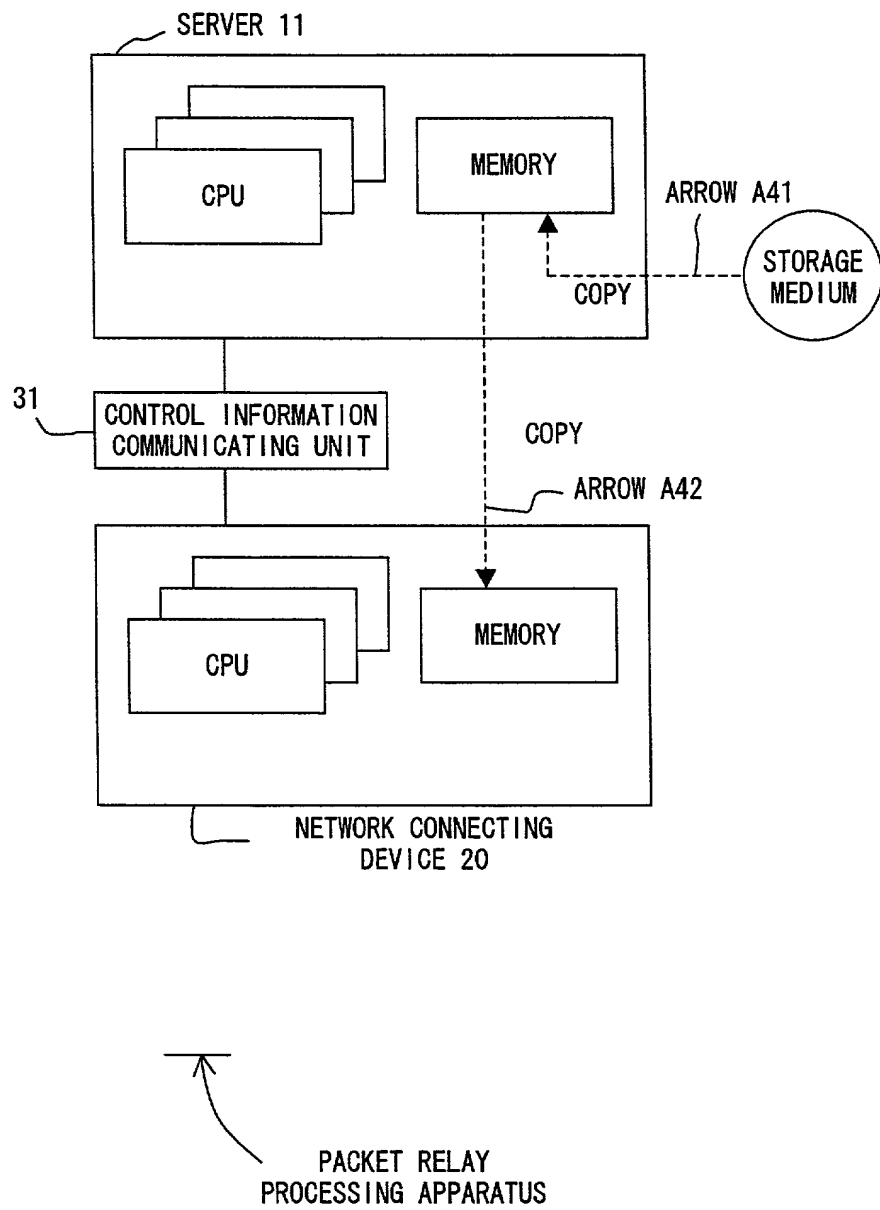


FIG. 39